

REMARKS/ARGUMENTS

Reexamination of the captioned application is respectfully requested.

A. SUMMARY OF THIS AMENDMENT

By the current amendment, Applicants basically:

1. Amend claim 5.
2. Respectfully traverse all prior art rejections.

B. PATENTABILITY OF THE CLAIMS

Claims 2-5 and 7-20 stand rejected under 35 USC 103(a) as being unpatentable over U.S. Publication 2003/0059991 to Teramoto et al in combination with applicant's admitted prior art, U.S. Publication 2004/0201874 to Yamazaki, U.S. Publication 2005/0148119 to Fujimura, U.S. Patent 4,584,025 to Takaoka et al and U.S. Publication 2003/0148565 to Yamanaka. All prior art rejections are respectfully traversed for at least the following reasons.

Japanese Patent Application Publication 2000-244036 (Kageyama), mentioned in the background portion of Applicant's specification, is directed to a laser pulse generation apparatus for manufacturing a thin polycrystalline film by annealing of an amorphous film using a laser. Kageyama teaches means for dividing the laser pulse into a plurality of pulses and controlling the duration of each pulse (*see*, Abstract). Further, there is a passage in the background portion of Applicant's specification that mentions a laser with pulse waves overlapped, delayed in time, and a continuous wave laser (page 3, lines 25 - 26).

Applicant's advantageous method of extending the laser pulse duration to provide the significant effect of making the temperature of the laser irradiated region uniform and the cooling velocity uniform to reduce occurrence of microcrystals (thereby resulting in

longer and wider crystal growth (page 13, lines 25 - 28 and page 29, lines 11- 49 in the specification of the present application)) is not taught or suggested in the background section of Applicant's specification or by Japanese Patent Application Publication 2000-244036.

The usage of an extended laser or a continuous wave laser according to Applicant's claim 1 thus provides a significant effect that cannot be achieved by a mere aggregation of U.S. Publication 2003/0059991 A1 (Teramoto) and Japanese Patent Application Publication 2000-244036 (Kageyama), and the usage of an extended laser or a continuous wave laser is not obvious. The same applies for claims 2-5 and 7- 20.

Moreover, dependent claim 5 of the present application requires directing a laser beam through a mask slit onto a semiconductor material layer. As now amended, dependent claim 5 further specifies that the laser irradiation is performed sequentially with respect to an adjacent region or a partially overlapping region of the semiconductor material layer by adjusting a relative position of the semiconductor material layer and the mask slit. By contrast, U.S. Publication 2003/0059991 of Teramoto ([0241]) discloses (in Fig. 10A) a method of forming, on a glass substrate 601, an SiO₂ film 602, an amorphous silicon film 603, and an SiO₂ mask 815 with a slit 802. SiO₂ mask 815 is formed by sputtering or CVD ([0241]). Therefore, mask 815 and slit 802 are fixed on amorphous silicon film 603. Accordingly, Teramoto cannot teach or suggest the subject matter of dependent claim 5.

Teramoto also teaches that laser 810 is moved in the direction of arrow 811, as shown in Fig. 10B. The amorphous silicon in region 802 is rapidly cooled since there is no SiO₂ film. However, amorphous silicon 603 in regions other than region 802 is sandwiched between SiO₂ film 602 and SiO₂ mask 815, such that amorphous silicon 603 is cooled slowly since the heat cannot escape due to the low heat conductive property of

the SiO₂ film. Accordingly, crystal growth is promoted ([0244]). Therefore, the functional effect of Teramoto's mask and slit differs considerably from Applicant's claimed subject matter.

C. MISCELLANEOUS

In view of the foregoing and other considerations, all claims are deemed in condition for allowance. A formal indication of allowability is earnestly solicited.

The Commissioner is authorized to charge the undersigned's deposit account #14-1140 in whatever amount is necessary for entry of these papers and the continued pendency of the captioned application.

Should the Examiner feel that an interview with the undersigned would facilitate allowance of this application, the Examiner is encouraged to contact the undersigned.

Respectfully submitted,

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